

DETAILED ACTION

Claim Rejections – 35 USC § 102

The Examiner stated that claims 1-5, 7-10, 12, 16-24, 26-51 are rejected under 35 U.S.C. 102(e) as being anticipated by Walker et al., (US Patent 6,567,787).

Claim Rejections – 35 USC § 103

The Examiner stated that claims 6, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al., (US Patent 6,567,787), in view of Surace et al., (US Patent 6,144,938).

The Examiner stated that claims 11, and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al., (US Patent 6,567,787), in view of Avi (US Patent 5,666,157).

Applicant has amended claims 1, 23, 48, and 49 to include, among other limitations: determining whether the at least one agent has adequately followed the at least one script based on a plurality of first scores related to respective portions of the at least one voice interaction and based on a second score related to an overall compliance with the at least one voice interaction.

Applicant has amended claims 33, 50, and 51 to include, among other limitations: for at least the given one of the interactions, comparing the actual duration of the given one interaction to the expected duration parameter and comparing a plurality of duration parameters to respective portions of the actual duration of the given one interaction;

Support for such limitations can be found at least on pages 13 and 14 of the instant invention:

The QA process 46 is next begun by retrieving the voice interaction record. The log record is also retrieved and reviewed to determine which scripts were to have been recited by the agent, and the corresponding ASR texts are retrieved for the ASR analysis. The voice and/or video recording is preferably divided into panel-level segments 48 for review and evaluation, and the log record is evaluated 50 to determine the expected ASR text by panel. A comparison of the voice interaction with the ASR text is then performed by the ASR component in order to determine the degree of compliance of the voice interaction with the ASR text. In the preferred embodiment, the ASR component assigns scores 52 based upon the level of accuracy

of the comparison. Confidence-level thresholds are used in evaluating the match accuracy. After each panel is evaluated and scored, an overall score may be determined. The panel-level scores and overall scores are next used to determine any action 54 to be taken as provided in the pre-determined set of action rules. Examples of such actions include sending an e-mail containing the file for review, providing a feedback message to the agent, or other actions tailored to the particular application.

Support for such limitations can also be found at least on pages 11 and 13 of the instant invention:

The script compliance module 24 preferably includes a scripting package 26, discussed in more detail below. The scripting package 26 is depicted graphically in Figure 3, and includes the following components:

First, one or more call scripts 28 are provided. The call scripts 28 may be maintained in the script compliance module, or, preferably, they may be maintained on the central computer and accessible by the script compliance module. The call scripts 28 are accessed during the voice interaction and contain the information to be read by the agent to the customer during the voice interaction. As noted above, the call scripts 28 are preferably presented in separate panels containing discrete portions of the overall call script. As an agent progresses through a call, the agent moves from a first panel, to a second, to a third, and so on. A single offer of a good or service may be contained on a single panel, or on several panels. Alternatively, several offers may be presented during a single call.

Second, a log record layout module 30 is provided. A log record is preferably created for each voice interaction taking place at the call center. The log record layout includes data fields for all data that could be captured during calls, and log records are maintained as part of the ongoing function of the call center. The data fields will, of course, vary based upon the operation of the call center. Typical data fields will include date and time of call, length of call, agent identity, customer identity, and any transaction data obtained during the call. Some data fields may be filled automatically during a call, such as date, time, agent identity, and the like, while others may be filled by the agent during the call.

Third, an ASR text module 32 is provided. The ASR text is a reference text to be used by the ASR component of the script compliance module, and corresponds to the call scripts described above. As with the call scripts, the ASR text is preferably provided in separate panels.

Fourth, a set of action rules 34 is provided. In the most general sense, the action rules take the output of the ASR component evaluation of the voice interaction and, based thereon, direct an action to be taken by another component of the script compliance module. The output of the ASR component evaluation may comprise, for example, a numerical score indicating the degree to which the voice interaction complied with the ASR text. The actions directed by the set of action rules may comprise, for example, a quality assurance (QA) action to be taken based upon the numerical score. For example, scores less than 60 may be sent to a QA authority for review, scores between 60 and 80 may have random calls selected for review by a QA authority, and scores over 80 may be used to drive a QA incentive program. These are examples only. The determination of specific standards and actions will depend, of course, on the type of application.

Fifth, a panel timestamp logging feature 36 is provided. The panel timestamp logging feature assigns a time displacement timestamp to each panel as it is presented and viewed by an agent during a voice interaction with a customer. For example, in a voice interaction in which a first panel is processed in 15 seconds and a second panel is processed in 12 seconds, the first panel will log from 0:00:00 to 0:00:15 (i.e., the duration of the voice interaction relating to the first panel) and the next panel will log from 0:00:16 to 0:00:27. This progression continues for each panel used during the voice interaction. A log of the timestamps is maintained for each voice interaction. The timestamps are then preferably used in the quality assurance process to facilitate panel-level playback of the voice interaction.

The communications system operation will now be described in reference to Figure 4, and in the context of a telemarketing call. A telemarketing agent and a customer engage in a voice interaction during which the agent processes the call 40, i.e., the agent reads from scripts presented on the workstation terminal and enters information in the fields provided according to responses obtained from the customer. As noted above, the scripts are preferably presented to the agent in panels, with each panel corresponding to a portion of the overall script, or to a separate script. The time displacement per panel is logged 42 as a

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portion of the log record. Once the call is completed 44, all data obtained during the call is logged according to the log record layout. If a voice recording or video recording are made, they too are logged and stored for later use in the QA process.

As such, Applicant believes such independent claims, as well as the claims that depend from them, are in condition for allowance and respectfully requests they be passed to allowance.

Respectfully submitted,

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